

ROLE ORIENTATION, EXPECTED LIFESTYLE AND ANXIETY:  
IMPLICATIONS FOR PSYCHOLOGICAL ANDROGYN

by

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The relationship between sex role orientation and anxiety as mediated by self - ideal self discrepancies and anticipated lifestyle was examined in this study. The Bem Sex Role Inventory (BSRI) with instructions for actual and ideal self descriptions, the Trait Scale of the State Trait Anxiety Scale, the Cattell IPAT Anxiety Scale and the Lifestyles for Women Scale were administered to 152 college women. The results indicated that the relationship between sex role orientation and anxiety appeared to be accounted for solely by the masculinity scores. Thus, androgynous and masculine individuals reported lower anxiety scores than did the undifferentiated and feminine subjects. It was concluded that the concept of androgyny, as construed by the BSRI, was not related to measured anxiety. Self - ideal self discrepancy scores were found to be a significant variable in relation to anxiety scores only for differences between actual and ideal

masculinity ratings. These findings were interpreted in terms of the demonstrated significance of the masculine items in relation to anxiety, rather than evidence of a relationship between general self dissatisfaction and anxiety. Social role scores were found to be strongly related to anxiety scores such that a tendency to anticipate a traditional social role after graduation was associated with lower anxiety scores. These findings were interpreted in terms of the relative salience academic success has for the traditional and nontraditionally oriented female.

Exploring subjects' perceptions of ideal sex role orientation, 80% of the subjects indicated a desire to be androgynous. All subjects reported wanting significant increases on BSRI masculinity scores, and all but the feminine subjects reported desired increases on the femininity scale. Androgynous women reported the smallest discrepancy score, undifferentiated women the largest. Further examination of the ideal ratings indicated that several feminine items were not considered desirable by any of the subjects, while this was not true for any masculine item. It was concluded that the BSRI contains an artificial factor which may contribute to lower femininity scores and misinterpretations concerning ideal self ratings.

A comparison of the balance and split half scoring procedures for the BSRI was made. It was found that the largest discrepancies occur between categorizing subjects as androgynous according to the split half method or as feminine by the balance procedure. Comparing the effects of these two scoring procedures on the data analyses, it was concluded that there was little difference in study outcome when the findings are concerned with comparing androgynous with nonandrogynous



subjects. It was concluded, however, that the balance procedure does not allow sufficient understanding of the factors contributing to the differential scores of the androgynous subjects. The split-half method of categorizing subjects and the examination of masculinity and femininity factors as they influence test outcome was proposed as essential for further androgyny research.

Further examination of the findings suggested a distinction between statistically significant and clinically significant findings. It was suggested that no clinical implications concerning the relationship between androgyny and psychological adjustment be drawn from this study.

## CHAPTER ONE INTRODUCTION

Sex role orientation has traditionally been associated with personal adjustment. Well adjusted individuals were presumed to adhere to the stereotypic patterns of behavior associated with their gender while deviance from these patterns was interpreted to signify "weak" or "crossed sex" identification. Recently the concept of psychological androgyny, the possession of both masculine and feminine traits by an individual, has received considerable attention in the psychological literature and appears to have renewed empirical interest in the area of sex typing and sex role adjustment. Wakefeld, Sasek, Friedman and Bowden (1976) describe androgyny as "freedom from rigid sex roles" while Bem (Bem and Lenney, 1976) carries the concept much further, establishing androgyny as a model for mental health:

. . . for full effective and healthy functioning, both femininity and masculinity must each be tempered by the other, and the two must be integrated into a more balanced, a more fully human, a truly androgynous individual.  
(p. 51)

She assumes, in this definition, the integration of both instrumental and expressive functioning, as well as the individual's ability to employ these traits with situation appropriateness.

However, her measure of psychological androgyny, the Bem Sex Role Inventory (BSRI) only determines the degree to which respondees ascribe to themselves a series of positively valued male and female attributes. This instrument is not able to ascertain the actual flexibility,

situation appropriateness or effectiveness of the subject. Nevertheless, the majority of studies investigating psychological androgyny report findings consistent with the "mental health ideal" definition (Bem, 1977; Heilbrun, 1976; Spence, Helmrich & Stapp, 1975). One study approached this issue from a different perspective and found, instead, a positive correlation between androgyny and anxiety (Jordan-Viola, Fassberg & Viola, 1976). This study provided an alternative lens for exploring the relationship of androgyny and personal adjustment.

Further investigations of the anxiety scores of androgynous individuals can be a valuable contribution to our understanding of the correlates and consequences of androgyny. In their critical review of androgyny research, Kelly and Worrell (1977) affirmed the need for further explorations of possible negative consequences of androgyny. They suggested that a wide behavioral repertoire, such as that available to androgynous individuals might, for some, produce competing response patterns leading to internal conflict. Variables possibly mediating the adaptability of psychological androgyny included unspecified individual differences and the particular social role or situation an individual might choose or encounter.

There is slight evidence to suggest that social role may indeed mediate the adaptive qualities of androgyny (Jordan-Viola et al., 1976). In this study, the BSRI and the Taylor Manifest Anxiety Scale were administered to large samples of female undergraduates, feminists, working women, and housewives. Positive correlations between androgyny and anxiety were reported for both the college and working women, while the feminists did not exhibit this relationship. However, methodological flaws may have contributed to these findings as the authors did not differentiate between

androgynous subjects scoring high on both masculinity and femininity, and those scoring low on both these attributes. It is possible that the increased anxiety of the androgynous subjects was a function of the low level androgynous participants. These findings need to be reexamined comparing the scores of the high and low level androgynous subjects.

Yet a third hypothesis for these findings is the possibility that some individuals who scored androgynous on Bem's measure were not comfortable possessing such a wide behavioral repertoire. Steinmann (1975) wrote that many of her therapy patients report considerable stress over the discrepancy which exists between their self perception and their internalized standards of who they should be. Individuals who hold expectations of their behavior markedly different from their self perceptions, whether androgynous or sex typed, may experience greater anxiety than those individuals who feel compatible with their ideal self. This too may be a significant variable influencing androgynous adjustment.

The goal of this study is to expand current knowledge of androgyny and its consequences for psychological adjustment by exploring some of the possible variables influencing anxiety scores of androgynous subjects. Specifically, the primary objectives of this study are to (1) reexamine the relationship between androgyny and anxiety; (2) determine whether sex role orientation and chosen social roles interact to influence anxiety scores; and (3) determine whether discrepancies between self perception and internal standards of behavior affect anxiety scores. Secondary objectives of this study are to (4) determine whether androgynous subjects manifest the same relationships with the experimental variables as do other subjects; and (5) determine whether masculinity and femininity contribute separately, by interaction, or as a function of the relative balance of the two traits, to anxiety scores.

### Background

Although both Freud and Jung each postulated that all individuals possessed characteristics of both sexes, it is only recently that sex role research has shifted its emphasis from the study of intersex differences to the exploration of intrasex variation of sex role attributes. Reviewing earlier sex role research, Constantinople (1973) concluded that sex role attributes had been assessed by a variety of Masculinity - Femininity (M-F) scales representing M-F as a single, bipolar dimension which tended to assess the individual's adherence or deviance from the modal male or female. Deviance was interpreted to signify "weak" or "crossed sex" identification while adherence was regarded as indicative of personal adjustment (Heilbrun, 1968). Employing bipolar M-F scales, both clinicians (Broverman, Broverman, Clarkson, Rosenkrantz & Vogel, 1970) and college students (Nowicki & Poe, 1973) described emotional, passive, dependent women as healthy, mature individuals. Deviations from the stereotyped expectation were associated with mental illness (Garai, 1970), with schizophrenia (Reed, 1957; McClelland and Watt, 1968) and with female alcoholism (Parker, 1972; Wilsnack, 1973).

However, other empirical evidence has suggested that, at least for women, strong adherence to these traditional role attributes and behaviors was not adaptive, and instead, was frequently associated with anxiety and low social acceptance (Cosentino & Heilbrun, 1964), with poor self concept (Rosenkrantz, Vogel, Bee, Broverman & Broverman, 1968; McKee & Sheriffs, 1957) and with low levels of achievement (Horner, 1968; Stein and Smithells, 1969). While control groups in several studies suggested that women can exhibit a proactive (masculine) approach to life and remain adjusted, effective human beings (Reed, 1957; McClelland and Watt, 1968), these findings were dismissed as anomalies.



Currently, psychological theory is focussing on the adaptive capacities of the individual who possesses both "masculine" and "feminine," both instrumental and expressive attributes —the androgynous individual. The integration of these attributes has been presented in theoretical discussions as a developmental task of the adult, the accomplishment of which is frequently associated with higher ego functioning (Bakan, 1966; Block, 1973; Carlson, 1971; Heffner, Rebecca & Oleshansky, 1975). Bem (note 1) argued for the scientific investigation of the androgynous individual and initiated a research program for that end. Her first accomplishment was the development of the Bem Sex Role Inventory (BSRI) which conceptualizes masculinity and femininity as separate dimensions, and therefore is able to assess psychological androgyny.

#### Theoretical and Operational Definitions of Androgyny.

Bem initially (1974) defined androgyny as the capacity to respond in either a masculine or feminine mode, according to the demands of any situation. Operationally, this was interpreted to mean the possession of a relatively equal number of masculine and feminine attributes, as measured by the BSRI. This inventory contains both a masculinity and a femininity scale, each consisting of 20 personality attributes selected on the basis of their sex typed social desirability, plus an additional 20 filler items. A respondent describes herself along a 7-point scale for each of these attributes, and subsequently receives a masculinity and a femininity score. A significant endorsement of one scale over the other was indicative of either a sex-typed or sex-reversed orientation. Individuals with an insignificant difference, determined by a t-score between their masculinity and femininity scores, were termed androgynous. Thus, the concept of a balance between one's instrumental

and nurturant potential responses, or modes of behaving, was regarded to be the hallmark of the androgynous individual. Implicit in this conceptualization was the notion that a balance between instrumental and expressive behaviors would promote situation-appropriate responses, and that instrumental and expressive behaviors were equally essential for all individuals, regardless of their sex or life situation.

Soon after Bem published her scale, Spence, Helmrich and Stapp (1975) developed a measure of androgyny which they employed in a study concerning the relationship of M-F to stereotypic self ratings. They based their scale on 55 bipolar adjectives from the Sex Role Stereotype Questionnaire of Rosenkrantz et al. (1968). These items were subsequently divided into three scales according to college students' ratings of these items on a five point scale, describing the ideal male and female. Eighteen items defined the Female Valued Scale. These items obtained ratings with means closer to the feminine side of the polar adjective for both sexes. Twenty-three items were classified as male valued according to a parallel procedure.

Analyzing their subjects' self ratings on the scale, the authors concluded that "masculinity and femininity . . . are orthogonal, if not positively related "(p. 35.) They also reported a strong, positive relationship between the male- and female- valued items and with self esteem as measured by the Texas Social Behavior Inventory (Helmrich et al, 1974), leading them to hypothesize that both masculinity and femininity may function in an additive fashion to determine an individual's self concept and behavior. Androgyny was reconceptualized as the "possession of a high degree of both masculinity and femininity"(p. 36.) Further analysis of the data suggested that while the combination of male- and female- valued

attributes was additive, it was not linear. The M-F-Androgyny continuum was thus operationally defined by splitting the subject population at the median points of both the male and female valued scales and forming four groups: Group I, low male valued, low female valued; Group II, low male valued, high female valued; Group III, high male valued, low female valued; and Group IV, high male and female valued. The groups, respectively, defined undifferentiated, feminine, masculine, and androgynous individuals.

This model, of course, differed from Bem's (1974) operational definition of androgyny which allowed individuals low on both valued traits to be termed androgynous, along with individuals characterized by their possession of high amounts of these valued attributes. To investigate the implications of these discrepant definitions, Spence and her coworkers rescored their data according to Bem's method and compared the results of both these procedures, using self esteem as the dependent variable. When the data were rescored according to Bem's method, self esteem increased directly across groups, with feminine subjects exhibiting the least amount of self esteem, masculine subjects the most, and androgynous subjects a moderate amount. With the additive (split-half) scoring procedure, undifferentiated individuals reported the lowest self esteem, and androgynous participants the highest. The authors concluded that masculinity and femininity represented "separate socially desirable components present in both sexes" (p. 36) and that androgyny, when defined as the possession of high amounts of both these valued traits, reflected the "most desirable state." Androgyny thus became associated with positive mental health and effective functioning.



The split-half method which had been advocated, at least partially because it reinforced the assumption that androgyny represents the healthiest sex role orientation, was widely adopted. Heilbrun (1976) incorporated the split-half method into his androgyny measure, and Bem (1977) likewise accepted this method, concurring with the position that undifferentiated and androgynous individuals represent two distinct personalities which need to be studied separately.

Nevertheless, a controversy continues among current researchers regarding the theoretical implications, and thus, the validity of the balance vs. the split-half method of assessing/defining androgyny. Although the androgyny construct continues to receive considerable empirical attention, a precise theoretical and methodological definition of this concept has not yet been established.

#### Methodological Difficulties with the BSRI

Although the BSRI is the primary research instrument assessing psychological androgyny, it is employed in a wide variety of ways, resulting in little consistency among research designs or data analysis. Some of the variations occur for theoretical reasons, others for statistical purposes. The theoretical distinction between a balance of masculinity and femininity, and the possession of high (although perhaps, unbalanced) amounts of these attributes is the most debated issue among androgyny researchers. Perhaps it is because this distinction determines the operational definition of androgyny, and hence, the methodology of androgyny research. Although Bem herself (1977) acknowledged that the split-half procedure provides a significant subject distinction and advocated its adoption, numerous researchers (Jones et al., 1978; Jordan-Viola, Hosford & Anderson, note 2; Wiggins & Holzmuller, 1978)

continue to employ the t-score or difference method. The adherence to this definition is further complicated by numerous "modifications" of Bem's original scoring procedures. Some researchers employ t-scores as continuous data (Jordan-Viola et al., note 2; Bem, 1977) while others categorize their subjects into three, rather than Bem's original five sex role classifications (Jones et al., 1978). Despite the lack of consistent methodology, "balance" advocates maintain that this approach is merited because the procedure provides an androgyny score which allows for statistical analysis (Wiggins & Holzmuller, 1978) and also allows the investigators to determine the significance of the relative amounts of instrumental and expressive traits in determining test outcomes (Jones et al., 1978). The uniqueness of undifferentiated subjects is frequently dismissed by balance proponents.

For other researchers, separate analysis of androgynous and undifferentiated subjects is considered essential (Bem, 1977; Heilbrun, 1976; Spence et al., 1975). The split-half procedure is able to distinguish these two subject populations, but presents several difficulties of its own. First, this method does not yield norms for categorizing subjects. Each subject population defines its median points and categorizes subjects accordingly. Hence, this procedure allows for uncontrolled variation across studies. It is possible that an individual termed androgynous in one study might be classified as undifferentiated or sex typed in another.

A second difficulty related to this procedure is the absence of an androgyny score. Sex role orientation is reduced to categorical data, which are then analyzed for main effects on one or more dependent

variables. While this method allows for the comparison of androgynous and non androgynous subjects, it does not provide a means of exploring possible factors, i.e., masculinity scores, femininity scores, or the interaction of these scores which might have contributed to these found differences.

Several methods have been proposed to ameliorate some of these difficulties. Orlofsky et al. (1977) suggested employing androgyny scores for those individuals who meet the split-half criteria. This might be an appropriate procedure if one were interested in the significance of the relative balance between the masculinity and femininity scores. A popular supplementary analysis at the present time involves the separate analysis of the contribution of the masculinity and femininity scores to the dependent variable, either by correlation (Jordan-Viola, Fassberg & Viola, 1976) or by multiple regression analysis (Bem, 1977; Hoffman & Fidell, note 3). Most recently, a third method for analyzing BSRI data has been proposed (De Fronzo & Boudreau, 1977). The investigators maintain that by employing a two-way analysis of variance of the two category masculinity and femininity factors, the resulting data would provide mean values of the dependent variables for each of the four BSRI categories, tests of the main effects of these factors, and a test for a possible interaction effect of masculinity and femininity on the dependent variable. They illustrated their assessment procedure in an investigation of the relationship of sex role orientation and women's expected number of children. A one way analysis of variance (the typical procedure) indicated that each of the BSRI categories were related to expected family size, and a multiple regression analysis indicated that the

femininity factor exerted a positive effect on the dependent variable, while the masculinity factor did not. The two way analysis of variance likewise demonstrated that femininity but not masculinity had a significant effect on expected family size, but also indicated that masculinity and femininity had an interaction effect, explaining why androgynous women had family plans more similar to the masculine and undifferentiated women, despite their high femininity scores.

This method of analysis may provide a procedure which will allow researchers to conceptualize androgyny as a psychological trait which is more than the possession of a certain number of characteristics by testing for the possibility that somehow these traits interact to contribute to the uniqueness of the androgynous individual. It is the opinion of this writer that the exploration of the possible factors contributing to the differential functioning of androgynous individuals is a necessary step toward furthering our understanding of psychological androgyny.

#### Theoretical Interpretations of the Androgyny Construct

The original operational definition of androgyny stressed the significance of the balance between an individual's instrumental and expressive capabilities (Bem, 1974). The balanced individual was presented as the alternative to the person characterized by a rigid sex role orientation without further elaboration regarding the significance of the balanced attributes. Current proponents of the balance definition maintain that a balance of sex typed characteristics would reduce the conventional limitations on behavior and allow for increased behavioral flexibility (Jones, Charnovetz & Hanson, 1978).

The balance definition was modified several years ago when self esteem, a presumed consequence of behavioral adaptability, was employed to validate Spence et al.'s (1975) operational conceptualization of androgyny. Androgynous individuals were described as consistently healthier, better adjusted individuals, rather than as people who were capable of behavioral flexibility. The construct of androgyny was interpreted to mean the possession of positively valued masculine and feminine traits which interact in a nonlinear fashion to contribute to increased psychological functioning. The quantity of instrumental and expressive attributes, rather than their relative proportions, identified the androgynous person and a distinction was made between individuals possessing relatively equal, but low amounts of masculine and feminine traits ( undifferentiated persons) and those possessing equal and high amounts of these traits ( androgynous people). While this distinction reified the mental health perspective of androgyny, it is not necessarily inconsistent with the behavioral flexibility interpretation.

Psychological androgyny has been construed in less absolute terms. Wakefeld et al. (1976) simply define androgyny as "freedom from rigid sex roles" (p. 766). Kaplan (1976), interpreting the androgyny construct as it applies to her work as a psychotherapist, regards androgyny as the possession of sufficient nontraditional traits to enable the individual to respond appropriately when a situation demands a nontraditional approach. These interpretations do not assume that all individuals are significantly involved in both masculine and feminine role activities, but instead, suggest that androgyny affords an advantage for those situations when atypical roles are required.



However, all these definitions or interpretations of androgyny focus solely on the adaptive qualities of traditional masculine and feminine attributes, ignoring possible nonadaptive consequences associated with these same traits. Such an interpretation appears logical, given that Bem reported including only those items which were found to be socially desirable traits. However, later research has suggested that perhaps the masculine and feminine traits are not of equal desirability, or are not perceived by individuals to be equally contributory to an individual's ability to deal with life circumstances. Jones et al. (1978) reported that both males and females indicated a strong preference for increased masculinity, as defined by the BSRI. On the other hand, most subjects indicated relatively little desire to change in either direction on the femininity scale. The authors interpreted these results as indicative of either subject satisfaction or disinterest in the areas of nurturance and emotionality. They also suggested that the masculine items represented traits which are more salient to the college student population.

If subjects do perceive instrumentality as being more important for their adaptive behavior, this represents a serious challenge to the concept of androgyny, which, as originally stated, proposed that both instrumentality and expressiveness were essential for optimal functioning. An important line of inquiry would then be to determine whether this perception is accurate or if both masculinity and femininity contribute to a higher level of psychological functioning. Hoffman and Fidell (note 3) analyzed the relationship between psychological androgyny, defined by the split-half method, and a large number of demographic and psychological variables. They reported that the

masculinity score was, in many cases, more important than the feminine score in determining the relationship, although femininity scores did contribute to some of the explained variance in the relationship between androgyny and self esteem and extroversion. The authors hypothesized that the masculinity scores may have contributed more to the total variability among subjects because of the greater variance of the masculinity scores, rather than the content of the masculinity items per se. An alternative hypothesis is that masculinity items are more salient traits for indices of psychological well-being. On the other hand, femininity appears to manifest a stronger influence on such characteristics as expected family size (DeFronzo & Boudreau, 1977) although masculinity did interact with femininity to influence the overall relationship.

These findings suggest that there may not be one salient aspect of psychological androgyny, but rather that the relationship between androgyny and other psychological and demographic variables may be a function of different aspects of androgyny for different variables. For some traits, only masculinity may be significant, for others, the interaction between masculinity and femininity may determine the relationship with androgyny. Clearly, the construct is beginning to appear more complicated than its original presentation. In response, more studies are now beginning to explore the characteristics of androgynous subjects which contribute to significant research findings. Such studies, like this one, attempt to determine whether masculinity, femininity, a balance or an interaction of these traits determines the test results for androgynous and nonandrogynous subjects.

### Androgyny and Personal Adjustment

Most of the initial androgyny research, however, focused on differentiating the performances of androgynous and nonandrogynous subjects. Studies were designed to demonstrate behavioral evidence of a wider response repertoire available to androgynous individuals, or to obtain psychometric indices of psychological well-being. Initially, the literature reported validation of the androgyny construct. Androgynous subjects reported higher role consistency, suggestive of greater personal adjustment (Heilbrun, 1976), higher self esteem (Spence et al., 1975) and greater self disclosure (Bem, 1977). Bem's overall program of research (Bem, 1974; Bem Martyna & Watson, 1976) indicated that androgynous individuals of both sexes were able to display masculine independence when under pressure to conform, as well as feminine nurturance when interacting with a human infant or lonely student. In contrast, masculine males and females were found to be low in nurturance and high in independence, while feminine males and females exhibited high nurturance but limited independence. Androgynous individuals were thus able to function more effectively across a variety of situations, while sex-typed individuals not only preferred appropriate activities, but tended to resist "inappropriate" roles. Subjects typed as masculine and feminine frequently reported increased discomfort and reduced self esteem as a function of engaging in cross sexed behaviors such as winding a ball of yarn or hammering a nail into a board (Bem & Lenney, 1976). The authors suggested that androgynous individuals may have been able to overcome the internally mediated sanctions experienced by the sexed typed subjects such that cross sexed behaviors were experienced as congruent with their self image.



While androgynous and sex-typed, sex reversed, and undifferentiated individuals do exhibit psychological and behavioral differences, current research has provided some evidence which disputes claims that androgynous individuals consistently function more effectively. Hoffman and Fidell (note 3) investigated the relationship of sex-role orientation and a wide range of psychological and demographic variables for middle class women. They report that while feminine women had lower self esteem than the masculine or androgynous women, they did not differ significantly from the other subjects on measures of physical or mental health, locus of control, or neuroticism. However, the undifferentiated women appeared to be the least adjusted, manifesting the lowest self esteem, the most external locus of control (differing significantly from the masculine and androgynous women), the most introversion, and the most neuroticism. Similar findings have been reported for the college population. Summarizing the results of a large program of study exploring psychological androgyny, Jones et al. (1978) report that while androgynous females were less conventional, more outgoing, politically aware, creative, and less awkward, shy and sensitive to criticism than were feminine typed females, masculine oriented women scored even more positively in that direction. The authors concluded that "the more masculine in orientation, the more adaptive, competent, and secure the female subject was" (p. 310). They hypothesized that the instrumental qualities comprising the masculinity scale reflect traits which are valued more by society in general and which are more conducive to social rewards. While it is true that instrumental qualities are socially valued and may be more important for successful college life, there are social roles which require and

value expressive functioning, and for these roles, a feminine rather than a masculine orientation would probably be more adaptive. Feminine women who choose such roles were found not to differ significantly in overall adjustment from their androgynous or masculine peers (Hoffman & Fidell, note 3). The relationship between sex role orientation and adjustment may be dependent upon the individual's life situation.

### The Other Side of Androgyny

In light of the continued interest in the androgyny construct, and additional research which questions the initial assumptions regarding this construct, an expanded focus of research seems warranted. In their critical review of the androgyny literature, Kelly and Worrell (1977) affirmed the need for further explorations into the possible negative consequences of androgyny. Accepting the essential premises of androgyny as a unique sex role orientation, they suggested that a wide behavioral repertoire such as that available to androgynous individuals might, for some, produce competing response patterns leading to internal conflict and indecisiveness. They hypothesized several variables which might influence the adaptability or nonadaptability of androgyny, including unspecified individual differences and the particular roles or social situation an individual might choose or encounter. Although Bem's studies (Bem, 1974; Bem, Martyna & Watson, 1976) of adaptive behavior did demonstrate behavioral differences between androgynous and nonandrogynous subjects, perhaps the experimental situations were not sufficiently salient for androgynous subjects to experience conflicting potential responses.

On the other hand, previous research programs which compared BSRI scores to psychometric indices of well-being may have been founded

on questionable grounds. Since androgynous individuals are defined as those people who ascribe to themselves high amounts of positively valued masculine and feminine traits, and therefore possess a greater number of these traits than their nonandrogynous peers, it is possible that androgyny and paper and pencil measures of psychological adjustment may be assessing the same attribute rather than two distinct but related personality variables. Clearly a different approach is required.

One study inadvertently provided a new approach through which to examine the psychological consequences of androgyny. Seeking to compare feminists to nonfeminist women, Jordan-Viola et al. (1976) administered the BSRI and the Taylor Manifest Anxiety Scale (TMAS) to female undergraduates, feminists, working women and housewives. Positive correlations between androgyny and anxiety were reported for both college and working women while feminists, more androgynous than the other groups, did not exhibit this relationship. These data suggest that androgyny may have some nonadaptive components.

#### Androgyny and Anxiety

Currently the relationship between androgyny and anxiety remains unclear. Several theoretical and methodological factors may have contributed to these findings. First, Jordan-Viola defined androgyny according to the balance procedure. In doing so she did not distinguish between androgynous individuals scoring high on both masculinity and femininity and those scoring low on both these valued traits -- the undifferentiated subjects. It is possible that the increased anxiety attributed to some of the androgynous subjects was indicative of the low level functioning of some of the undifferentiated participants.

Undifferentiated subjects, perceiving themselves to possess few valued male or female traits, tend to report lower self esteem (Hoffman & Fidell, note 3; Spence et al., 1975). A review of the research on anxiety reveals that individuals reporting low self esteem have been found to report higher anxiety scores than individuals exhibiting high self esteem (Blum, 1972; Giddings, 1971; Wheeler, 1965). Undifferentiated subjects, therefore, might be expected to have higher anxiety scores than other subjects since they tend to report the lowest self esteem scores.

A second possible explanation for Jordan-Viola et al.'s findings is that some individuals who scored androgynous on the BSRI were not comfortable with their sex role orientation, they may have wanted to be more balanced in their sex role orientations or to have greater or lesser amounts of instrumental or expressive traits. Individuals who hold internal expectations of themselves which differ markedly from their self perceptions may experience greater anxiety than those individuals who feel more congruent with their ideal self. Howe (1972) reports that anxiety scores on the IPAT Anxiety Scale, a measure highly correlated with the TMAS, were related to discrepancies between self and ideal self perceptions. In a study designed to assess the validity of androgyny as the "most desirable state of orientation," Jones et al. (1978) had subjects take the BSRI twice. The first time they followed the normal instructions; the second time subjects rated each item for the extent to which they would want to have more, less or the same of each of the trait items. Feminine female subjects desired a significantly greater increase on the masculine items than did androgynous and masculine female subjects, while there was no difference on the masculine

items between the masculine and androgynous subjects. There were no significant trends or differences among the female subjects regarding desired changes in femininity scores. We might expect, therefore, that feminine and undifferentiated women, as well as perhaps, androgynous women with relatively low masculinity scores, would experience larger discrepancies between their self and ideal self perceptions, and thus also higher anxiety scores than their androgynous and masculine peers. Supporting this hypothesis, Jordan-Viola et al. (1976) reported that anxiety and masculinity scores were negatively correlated for both the feminists and the university women suggesting that higher masculinity scores were related to lower anxiety scores.

In their study, Jordan-Viola and her coworkers analyzed the data from each of their groups -- the students, working women, housewives and feminists -- separately. It is interesting to note that the significant findings concerning androgyny and anxiety scores, and masculinity and anxiety scores existed only for some of these groups. Positive correlations between anxiety and androgyny were found only for working women and students, while negative correlations between anxiety and masculinity were found only for the feminists and students.

One possible explanation for these findings is the age differences among the groups. While the femininists, working women and housewives were of a similar age (median age 29, 34, and 34 years, respectively) the university women were significantly younger, their median age being only 17 years. To control for the possible influences on the anxiety scores, this study will examine the relationship between anxiety and sex role orientation only for college-age women. A second possible explanation for these findings is that social roles may mediate the adaptive qualities of sex role orientation.



### Social Role as a Mediating Variable

Research evidence suggests that there is a relationship between sex role orientation and social role choice. De Fronzo and Boudreau (1977) asked a large sample of undergraduate females to report the number of children they expected to have after marriage. The results indicated that feminine women anticipated the most children while undifferentiated anticipated the least. Androgynous women reported anticipating a family approximating the size desired by the masculine and undifferentiated subjects. This same pattern of relationship was found for older women as well. Masculine and androgynous middle class women exhibited a tendency to work outside the home, while feminine and undifferentiated women do not (Hoffman & Fidell, note 3). Among those women who do work, masculine and androgynous women tend to work full time, while feminine and undifferentiated women work part time. Furthermore, the feminine women tended to have conservative attitudes about the role of women, to like housework, and to take full responsibility for childcare and homemaking. Although more liberal in their attitudes toward women's roles and liking housework less, undifferentiated women were similar in their life situations to the feminine women.

Consistency between sex role orientation or attitudes and role behavior may contribute to increased psychological adjustment. Hoffman and Fidell (note 3) reported that feminine women who had chosen to be homemakers did not differ in their overall adjustment from their masculine or androgynous peers. However, homemakers who wanted to be working outside the house were less healthy and less adjusted than their peers who wanted to stay home (Fidell, note 4).

On the other hand, Kelly and Worrell (1977) have suggested that social situations or social roles may have the potential to create conflicting response patterns for androgynous individuals. For college women, such a situation might be characterized by their expressed commitment to a domestic and/or career role orientation. It has been suggested that the college years are a time of courtship as well as career preparation (Maccoby & Jacklin, 1974). For some college women, their college experiences may represent a situation which brings their instrumental and expressive response traits into conflict, while for other women this might not be so. Because social role choice in the college years is likely to be a salient social situation for women, it represents a variable which may have a significant mediating influence on the anxiety scores of women. Overall, the literature indicates that social role choice may not only be related to sex role orientation, but may mediate the relationship between sex role orientation and indices of psychological adjustment such as anxiety.

### The Study

The main objectives of this study were to further explore the relationship between psychological androgyny and measures of anxiety for college women. Anticipated social roles and subjects' internalized expectations of sex role behavior were perceived as potentially significant variables influencing this relationship, and these variables were included in the experimental design. A second major goal of this study was to further examine the construct of androgyny and to determine whether the pattern of interrelationships between androgyny, anxiety and social role was similar to the patterns exhibited by the sex role orientation construct in general, or whether androgynous

individuals manifested a unique pattern as had been intimated in early androgyny interpretations. Taking further steps to both map out the relationship between sex role orientation in general, androgyny as a specific case, and anxiety scales, the salience of masculinity scores, femininity scores, their relative balance or imbalance and their possible interaction was explored for each of the research questions. The specific research questions guiding this study are discussed below.

1. Is there a significant relationship between sex role orientation, as categorized by the BSRI, and anxiety scores?

While Bem's "mental health ideal" definition of androgyny would predict that androgynous subjects will exhibit the lowest anxiety scores, Jordan-Viola et al.'s (1976) research suggests that androgynous subjects might report high anxiety scores, assuming that the results based on balance-defined androgynous subjects are predictive for androgynous subjects defined by the split-half method. Based on the anxiety research, however, it was hypothesized that feminine and undifferentiated subjects would report the highest anxiety scores, androgynous subjects moderate scores, and masculine subjects the lowest scores.

It was also hypothesized that masculinity scores as measured by the BSRI would exhibit a negative relationship with anxiety, while BSRI femininity scores would be positively related.

2. Is there a significant relationship between social role choice, as measured by the Lifestyle for Women Scale and the anxiety scores of college women? Does this relationship hold true for androgynous subjects?



On the basis of the conclusions reported by Fidell (note 4) and Hoffman and Fidell (note 3) it was hypothesized that consistency between sex role orientation and social role choice would be related to lower anxiety scores. Thus, it was predicted that androgynous women who subscribed to a more domestic role would manifest higher anxiety scores than those who anticipated a more career oriented role.

3. Is there a significant relationship between self - ideal self discrepancy scores on the BSRI and anxiety scores for all subjects? For androgynous subjects?

On the basis of the previously cited anxiety research, it was hypothesized that large discrepancy scores would be associated with higher anxiety scores for all subjects including androgynous individuals.

4. Is there a relationship between sex role orientation and self - ideal self discrepancy scores?

In light of empirical evidence relating masculinity scores to high self esteem (Spence et al., 1975) and positive well-being (Jones et al., 1978), it was hypothesized that undifferentiated women would report the largest discrepancy scores with feminine subjects following a similar trend. Androgynous women, on the other hand, were expected to report small self - ideal self discrepancy scores. Since the discrepancy scores are not independent from the actual scores and therefore are not statistically independent from subject categorization, these hypotheses will not be able to be tested statistically. However, the data will be carefully scrutinized with regard to this question.

5. Do college women perceive androgyny, as measured by the split half method, to be the most desirable mode of orientation?

Initially, androgyny was defined as the most adaptive sex role orientation (Bem, 1974; Bem, Martyna & Watson, 1976; Spence et al. , 1975). However, Jones et al. maintain that college women perceive instrumental traits as being far more salient to their lives, suggesting that perhaps college women would prefer to be more masculine in their orientation. This study explored women's ideal self as defined by the BSRI and attempted to clarify some of the issues concerning the desirability of an androgynous orientation. However, no hypotheses were made for this question.

## CHAPTER TWO METHODOLOGY

### Subjects

Participants in this study were 152 female undergraduate students participating in this experiment for class credit. The median age of this population was 18 years and the students represented a wide range of college majors. This population was chosen to: (1) control for a variety of possible confounding variables including age and social position and (2) maintain consistency with, and build upon previous research which has generally employed a similar population.

### Measures

#### BSRI

The BSRI was used to assess subjects' sex role orientation. This measure is the most consistently employed androgyny measure and has adequately demonstrated its reliability and validity. Subjects were categorized according to the median masculinity and femininity scores reported for Bem's large normative sample (N=664) (Bem, 1977). These median points were employed in place of median points generated from this population in an attempt to begin standardization of BSRI categorization.

#### Lifestyles for Women Scale

The Lifestyles for Women Scale (Burns, 1974) was employed to assess anticipated social role. This measure was designed to assess college women's orientation to either a domestic, career or combination lifestyle. High scores are associated with a domestic or traditional lifestyle, while lower scores are indicative of a career orientation. The scores may

range from 20 to 100. Burns (1974) established some validity for this scale by demonstrating positive relationships between scale scores and attitudes toward women's liberation and attitudes toward potential spouse or living partner. Career oriented women tended to picture a living partner as equal or submissive. Reliability for this measure, as established by Burns (1974) was high, with a coefficient alpha index of .889 for women. Furthermore, each of the 20 items in this scale was found to be significantly correlated with the overall scale score suggesting each item affected the total score. No significant relationships were found for other factors such as age, year in college, marital status or intended college major. The items in this scale are easy to comprehend and the scale has an advantage in being relatively brief.

#### IPAT Anxiety Scale

Cattell's IPAT Scale (Cattell, 1957) was employed as one measure of anxiety. This measure consists of 40 items which the respondent may or may not ascribe to herself. These items were selected for their ability to measure an individual's level of free anxiety. The scale yields a total score, in addition to measures of overt and covert anxiety. The total score of this measure has high rest-retest reliability ( $r=.93$ ). Although the reliability for the overt and covert scales is not as high ( $r=.82$  for each scale), Cattell (Krug, Scheier & Cattell) maintains that their reliability is sufficient for empirical use. All three scores will be employed separately in the data analysis providing three measures of anxiety, termed Overt, Covert and Total in the analysis of the data.

#### State-Trait Anxiety Inventory

Spielberger's Trait Scale of the State-Trait Anxiety Inventory (Spielberger, 1970) was employed as a second measure of anxiety. According to

Spielberger (1972) this scale is highly correlated with both the Taylor Manifest Anxiety Scale and with the IPAT Anxiety Scale. The items for the Trait Scale were selected on the basis of significant correlations with other anxiety scales including the Taylor Manifest Anxiety and the IPAT scales. Research with this scale suggests that the items are stable over time (test - retest reliability  $r = .80$ ) (Spielberger et al., 1970). Overall, the scale purports to measure "anxiety proneness in social situations." Individuals with high trait anxiety are considered to be more likely to become anxious in social situations.

#### Procedure

Subjects were told they were participating in a study exploring how women see themselves and their choices for the future and informed consent was obtained from all subjects (see Appendix I). Subjects then received the questionnaire which contained, in the following order, a request for background information including age, year in school, chosen major, chosen career and extent of career information seeking behavior (see Appendix II); the BSRI with instructions to respond to the items "as you would describe yourself"; the Trait Anxiety Scale; the Lifestyles for Women Scale; the BSRI with instructions to "respond to these traits so that they describe your 'ideal self'"; and the Cattell IPAT Anxiety Scale. The order of these items was fixed for all subjects and was determined to allow for the separation of the two anxiety scales and the two forms of the BSRI.

Following the experimental procedures, all subjects were asked to read and sign a debriefing form explaining the nature of the experiment and a request for the confidentiality of the purpose of the experiment to insure the naivete of subsequent subjects (see Appendix III).

### CHAPTER THREE RESULTS

All the data were scored by hand and coded and analyzed in accordance with the requirements of the Statistical Analysis System (Barr, Goodnight, Sall & Helwig, 1976). Subjects were categorized as masculine, feminine, androgynous or undifferentiated according to the split-half method, employing the median norms (Masculinity = 4.76; Femininity = 4.89) supplied by Bem (1977). By this procedure, almost half of the subjects (48%) were classified as androgynous. Precisely, there were 73 androgynous women, 40 feminine, 17 masculine subjects and 22 undifferentiated women..

The first research question focussed on the relationship between sex role orientation as defined by the BSRI, and anxiety scores. In order to answer this question, the four sex role categories were conceptualized as the end products of a two by two contingency table based on their high and low masculinity and high and low femininity scores, which resulted in four cells. Androgynous subjects possessed high masculinity and femininity scores; masculine subjects, high masculinity and low femininity; feminine subjects, high femininity and low masculinity, and undifferentiated subjects possessed both low masculinity and femininity. These four sex role groups were then compared on their anxiety scores for each of the four anxiety measures by a series of two way analyses of variance examining the effects of the masculinity and femininity scores and their interaction. Table 1 summarizes the results of these analyses. Consistently, the results indicated a significant difference among the four sex role groups on all the anxiety measures except the Covert Anxiety Scale. Although the Covert



Table 1

Summary of the Two Way Analyses of Variance of Anxiety Scores

Trait Anxiety					
Source	df	SS	MS	<u>F</u>	
Model	3	1318.37	439.46	6.29	p < .0006
Masculinity (M)	1	1258.56		15.33	p < .0001
Femininity (F)	1	27.26		.38	n.s.
M x F	1	32.55		.47	n.s.
Error	148	10336.90	69.84		
Total	151	11655.26			
Overt Anxiety					
Source	df	SS	MS	<u>F</u>	
Model	3	669.67	223.22	5.23	p < .002
M	1	659.79		13.24	p < .0004
F	1	0.17		0.0	n.s.
M x F	1	9.71		.23	n.s.
Error	148	6322.23	42.71		
Total	151	6991.89			
Covert Anxiety					
Source	df	SS	MS	<u>F</u>	
Model	3	41.42	13.97	.42	n.s.
M	1	38.85		1.18	n.s.
F	1	2.87		.09	n.s.
M x F	1	.20		.01	n.s.
Error	148	4872.16	32.91		
Total	151	4914.08			
Total Anxiety					
Source	df	SS	MS	<u>F</u>	
Model	3	1072.56	357.52	2.85	p < .04
M	1	1066.65		8.51	p < .004
F	1	.79		.01	n.s.
M x F	1	5.13		.04	n.s.
Error	148	18554.96	125.37		
Total	151	196227.52			

Scale did correlate highly with the other anxiety scales in this study (see Appendix IV) it did not exhibit similar relationships with the independent variables.

Independent F tests for the main effects of these two way analyses of variance indicated that masculinity scores contributed almost exclusively to the overall group tests (see Table 1). Femininity scores exhibited no relationship with any of the anxiety measures and there was no interaction effect between masculinity and femininity scores. Examining the mean anxiety scores for each of the four sex role groups ( see Table 2), it becomes apparent that the mean Trait, Overt and Total anxiety scores of androgynous and masculine women are very similar as are the anxiety scores for the feminine and undifferentiated individuals. This would be expected due to the strong effect of the masculinity scores.

Table 2

Mean Anxiety Scores of the Four Sex Role Categories

	Androgynous	Masculine	Feminine	Undifferentiated
Trait Anxiety	36.34	36.24	41.45	43.50
Overt Anxiety	13.34	12.82	17.25	17.91
Covert Anxiety	15.82	15.59	16.95	16.55
Total Anxiety	29.01	28.41	34.20	34.45

Thus far the results indicate that androgynous and masculine women reported significantly lower anxiety scores than did the feminine and undifferentiated women. As predicted, high masculine subjects had significantly lower anxiety scores than did low masculine subjects, but contrary to prediction, there was no significant difference between high and low feminine subjects.



The second research question focused on the relationship between social role choice and college women's reported anxiety scores, while the third research question considered the relationship between self and ideal self discrepancy scores on the BSRI and anxiety scores. The relationship of these variables, and masculinity and femininity, was explored by a series of multiple linear regression analyses predicting the subjects' anxiety scores. This method of analysis was chosen in order to examine the masculinity and femininity scores of the BSRI as continuous data. Therefore, the findings of these analyses were interpreted solely in terms of the predictive ability of the independent variables for the anxiety measures. These analyses were first run for all subjects and then a second time employing only the data from the androgynous subjects. Initially, a wide range of variables was entered into the regression equation with each of the anxiety scales representing, in turn, the dependent variable. Masculinity and femininity scores were entered as were variables testing for the possible curvilinearity of the relationship between these variables and the dependent variable. Social role scores were added to the equation and were likewise tested for curvilinearity. Ideal masculinity and ideal femininity scores were also entered as were the interaction terms for all the possible interactions among these variables. The initial results indicated that there were no significant curvilinear relationships between the independent variables and any of the anxiety scores, and that none of the interaction terms contributed to the predictive value of the model. The interaction and curvilinear terms were then dropped from the regression model leaving five independent variables -- masculinity scores, femininity scores, ideal masculinity scores, ideal femininity scores

and social role scores. The second round regression analyses yielded consistent results for three of the dependent variables -- the Trait, Overt and Total scales, but again the Covert scale exhibited a different pattern. Since the pattern of relationships was similar for the other three scales, for the sake of simplicity the results will be discussed in terms of the regression on the trait anxiety scores. Table 3 summarizes these findings. A complete summary of the remaining regression analyses may be found in Appendix IV.

Table 3

Trait Anxiety Scores Predicted by the BSRI Actual and Ideal Scores and Social Role Scores

Variable	$\beta$	$F$	df	
Masculinity (M)	-5.84	21.72	1,146	$p < .0001$
Femininity (F)	-1.55	.96	1,146	n.s.
Ideal M	2.15	1.55	1,146	n.s.
Ideal F	1.69	.79	1,146	n.s.
Social Role	-0.16	6.91	1,146	$p < .01$

Note:  $R^2 = .19$

Again, masculinity was found to be the most significant variable contributing to the effectiveness of the regression model. Social role scores were also very significant in this model. The estimated intercepts of the regression model indicated that an increase in social role choice, that is, a choice of a more traditional social role, was likewise significantly related to a decrease in trait anxiety scores. No relationship was found between femininity scores, ideal masculinity

and femininity scores, and reported anxiety. It must be emphasized here that as noted in Table 3, the total predictive ability of this regression model is minimal. However, the purpose of these analyses was not to build or propose a model of anxiety, but to explore the relationship between the continuous data of the independent variables and the anxiety measures.

To answer the third research question and determine whether self - ideal self discrepancy scores were significantly related to anxiety scores, the difference scores were computed for both masculinity and femininity. These scores were then entered as independent variables, along with social role, into a regression equation which again predicted, in turn, to each of the four anxiety measures. The results of these analyses are summarized in Table 4. Consistently, the discrepancy scores for the masculinity scale were significantly related to anxiety scores. The larger the discrepancy, the higher the anxiety scores. Social role remained a significant variable in this model, but femininity differences scores were not found to be related to anxiety scores.

Exploring the consistency of these relationship patterns as they apply to a androgynous subject, these same regression models were applied only to the scores of the androgynous subjects. The discrepancy scores did not exhibit a significant relationship with the dependent variable, but social role choice remained a significant variable in relation to the reported anxiety scores,  $F(1, 68) = 4.81, p < .05$  (for Trait Anxiety). A complete summary of these findings appears in Appendix IV. The more traditional the social role orientation of the androgynous subjects, the lower their anxiety scores tended to be. This finding was consistent with the interrelationship pattern of anxiety scores and

Table 4

Prediction of Anxiety Scores by BSRI Discrepancy  
Scores and Social Role Scores

Trait Anxiety				
Variable	$\beta$	<u>F</u>	df	
M Discrepancy	5.24	17.75	1,147	$p < .0001$
F Discrepancy	.74	.01	1,147	n.s.
Social Role	-.11	3.52	1,147	$p < .06$
Note: $R^2 = .15$				

Overt Anxiety				
Variable	$\beta$	<u>F</u>	df	
M Discrepancy	3.47	12.50	1,147	$p < .0005$
F Discrepancy	-4.59	.83	1,147	n.s.
Social Role	-0.11	4.87	1,147	$p < .03$
Note: $R^2 = .12$				

Covert Anxiety				
Variable	$\beta$	<u>F</u>	df	
M Discrepancy	1.71	4.25	1,147	$p < .04$
F Discrepancy	-3.85	.82	1,147	n.s.
Social Role	-.13	9.69	1,147	$p < .002$
Note: $R^2 = .10$				

Total Anxiety				
Variable	$\beta$	<u>F</u>	df	
M Discrepancy	5.21	10.16	1,147	$p < .002$
F Discrepancy	-8.27	.97	1,147	n.s.
Social Role	-0.27	8.25	1,147	$p < .005$
Note: $R^2 = .13$				

social role scores for all subjects regardless of sex role classification.

The fourth research question focused on the relationship between sex role orientation and self - ideal self discrepancy scores. Because the mean discrepancy scores were not independent from the subject's actual BSRI scores and therefore were not independent from subject's sex role categorization, it was not possible to statistically test the hypothesized group differences. This research question was concerned, essentially, with the relative satisfaction individuals report concerning their sex role orientation. As such, it is related to the last research question which explores the internalized standards of desirable sex role orientation. These questions were examined via several indirect approaches.

First, subjects were categorized into actual and ideal sex role groups according to the split-half procedure based on their actual and ideal self BSRI scores. Table 5 indicates the actual and desired sex role categorization for the entire sample population. As can be seen in the table, few subjects indicated they would like to be classified as either undifferentiated (only 1 subject) or feminine (10 subjects). On the other hand, 122 or 80% of the subjects indicated they would like to be androgynous. Examining Table 5, it is obvious that few of the subjects wanted to remain feminine or undifferentiated, while all of the androgynous subjects, and the majority of the masculine individuals reported they would remain classified as they actually were.

Jones et al. (1978) reported that college students do not express any desire to increase their femininity scores. They based

their conclusions on experiments employing the t-score procedure. Thus, it seemed necessary to investigate the significance of androgyny scoring procedures for ideal sex role orientation. The ideal self ratings of all subjects were rescored according to the t-score method, and subjects were categorized into three groups -- androgynous, masculine and feminine -- according to the cutoff scores proposed by Jones and his coworkers. Thus, androgynous subjects were those individuals who obtained t-scores between +1 and -1. Subjects who received scores higher than +1 were termed feminine, while those subjects with t-scores less than -1 were categorized as masculine. Defined by this method, only 68 of the 152 subjects ideally wanted to be androgynous. Twenty-six indicated a desire to be classified as feminine according to the t-score method, while the remaining 55 subjects indicated they wished to be masculine.

Table 5

## Comparison of Subjects' Actual and Ideal Sex Role Orientation

Actual Sex Role Orientation	Ideal Sex Role Orientation				N
	Androgynous	Masculine	Feminine	Undifferentiated	
Androgynous	71	2	0	0	73
Masculine	7	10	0	0	17
Feminine	32	1	7	0	40
Undifferentiated	12	6	3	1	22
N	122	19	10	1	152



To further explore the salience of masculinity and femininity for this population, the mean ideal masculinity and ideal femininity scores were computed for each sex role group and the differences between the actual and ideal scores were submitted to a correlated t-test. Table 6 presents the mean masculinity and mean femininity discrepancy scores and the computed t-tests for the four sex role groups. All subjects, except those categorized as feminine reported ideal femininity scores which were significantly higher than their actual femininity scores. Similarly, all subjects reported significantly higher ideal masculinity scores.

Table 6

Correlated t-tests for the Self - Ideal Self Difference Scores on the Masculinity and Femininity Scales by Sex Role Categories

Mean Masculinity Scores						
	Actual	Ideal	Difference	df	<u>t</u>	
Androgynous	5.46	5.76	.47	72	10.78	p < .0005
Masculine	5.45	5.73	.28	16	3.03	p < .01
Feminine	4.24	5.33	1.09	39	10.95	p < .0005
Undifferentiated	4.19	5.11	.92	21	10.24	p < .0005
Mean Femininity Scores						
	Actual	Ideal	Difference	df	<u>t</u>	
Androgynous	5.35	5.45	.10	72	2.24	p < .025
Masculine	4.39	4.86	.48	16	3.83	p < .01
Feminine	5.45	5.52	.07	39	1.12	n.s.
Undifferentiated	4.53	5.11	.58	21	5.42	p < .0005



When the mean masculinity and femininity discrepancy scores are added and averaged for each subject group, a trend emerges in which androgynous women report the lowest mean discrepancy scores, while undifferentiated women report the highest, as predicted. Figure 1 illustrates this pattern. As indicated previously, these differences could not be tested statistically because of the lack of independence between the difference score and subjects' sex role categorization.

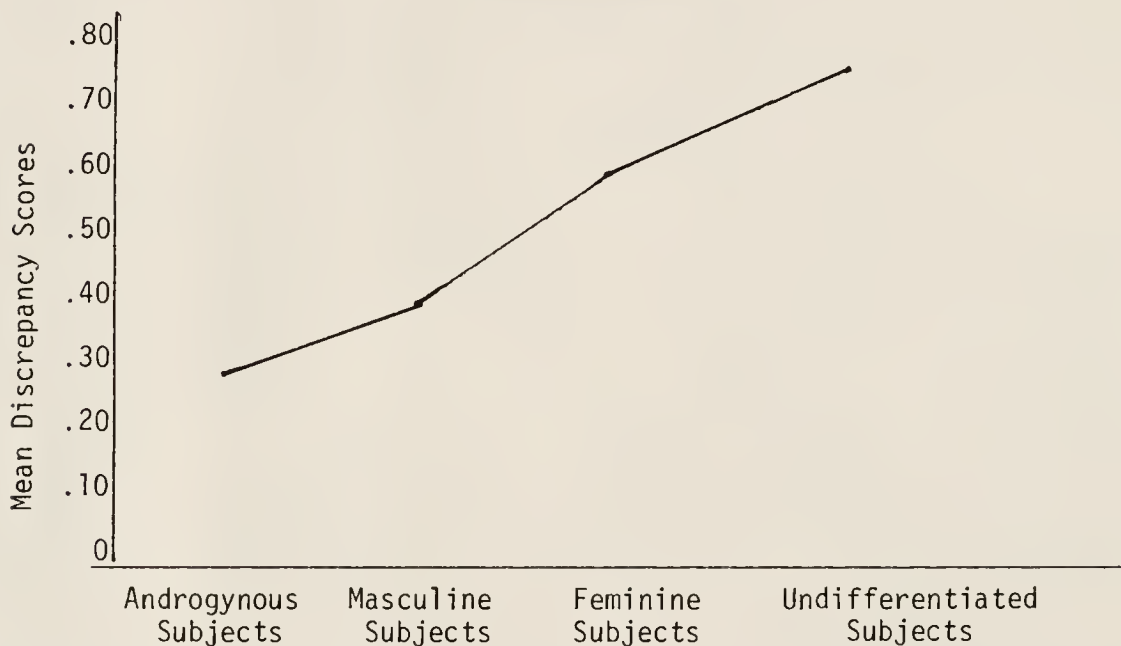


Figure 1. Mean Self - Ideal Self Discrepancy Scores for the Sex Role Groups

One of the major issues in the androgyny literature concerns the possible conflicting results between sample populations categorized by different procedures. To determine the relative contribution of balanced masculine and feminine traits, subjects' BSRI data were rescored according to the t-score method and were categorized according to the previously indicated norms. These three groups were then computed

for their mean anxiety scores on each of the four anxiety scales by means of a Manova analysis. The results indicated that there was an overall effect due to the sex role groups,  $F(4, 147) = 3.09$ ,  $p < .02$ . A complete summary of the Manova analysis is in Appendix IV. As shown in Table 7, the masculinity group reported the lowest anxiety scores, androgynous subjects moderate amounts and the feminine subjects the highest anxiety scores on all four scales.

Table 7  
Mean Anxiety Scores of the Three Sex Role Categories  
Defined by the Difference Method

	Masculine	Androgynous	Feminine
Trait Anxiety	36.72	37.55	40.50
Overt Anxiety	15.52	16.25	16.44
Covert Anxiety	13.48	14.24	16.21
Total Anxiety	30.31	28.97	32.65

Bem (1977) suggested that the androgyny score could be employed as continuous data in linear models procedures. Thus, the t-score, along with social role scores as a second independent variable, was entered into a regression model, predicting the anxiety scores of all subjects. This was a significant model with both the t-score and social role scores contributing significantly to the model (see Table 8). The estimated intercepts of the independent variables indicate that higher t-scores, indicative of a trend toward increased femininity, were related to higher anxiety scores. When the same regression equation was applied to the data of only the androgynous subjects, the

t-score did not add a significant contribution to the regression model. Thus, for subjects possessing relatively high amounts of masculinity and femininity, the relative balance or imbalance of these attributes does not significantly affect the relationship between sex role orientation and anxiety scores.

Table 8

Prediction of Anxiety Scores by Androgyny t-scores and Social Role

Trait Anxiety				
Variable	$\beta$	F	df	
t-score	2.93	12.81	1,149	$p < .0005$
Social Role	-0.20	12.37	1,149	$p < .0006$

Note:  $R^2 = .17$

Overt Anxiety				
Variable	$\beta$	F	df	
t-score	2.18	11.69	1,149	$p < .0008$
Social Role	-0.15	11.66	1,149	$p < .0008$

Note:  $R^2 = .11$

Covert Anxiety				
Variable	$\beta$	F	df	
t-score	0.77	2.02	1,149	n.s.
Social Role	-0.14	13.21	1,149	$p < .0004$

Note:  $R^2 = .08$

Total Anxiety				
Variable	$\beta$	F	df	
t-score	2.98	7.79	1,149	$p < .006$
Social Role	-0.28	14.91	1,149	$p < .002$

Note:  $R^2 = .11$

Since social role scores were found to be a highly significant variable in relation to anxiety scores, the relationship between sex role orientation and social role choice was examined. The mean social role scores for the four sex role groups are illustrated in Figure 2. The masculine and undifferentiated groups reported the lowest, or least traditional social role choices, while feminine subjects reported the most traditional choices. Androgynous subjects reported social role choices somewhere between these two extremes.

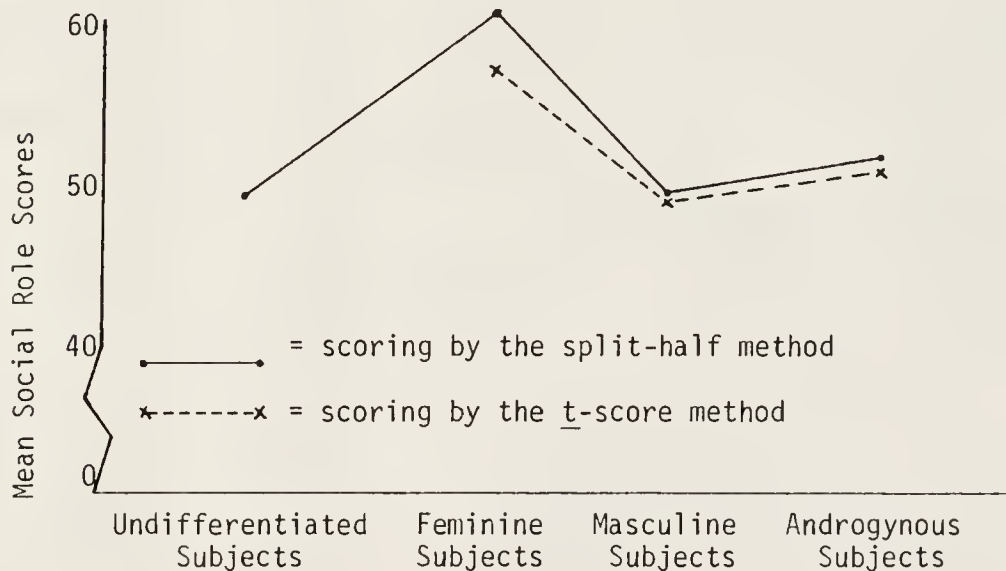


Figure 2. Mean Social Role Scores of the Sex Role Groups Categorized by the Split-Half and the t-score Procedures

A two way analysis of variance indicated that there were significant group differences in social role choice,  $F(3, 148) = 6.38$ ,  $p < .001$ . Analysis of the main effects indicated that femininity scores were strongly related to social role choice,  $F(1, 148) = 10.72$ ,  $p < .001$ , and there was a nonsignificant trend for masculinity scores,  $F(1, 148) = 3.16$ ,  $p < .08$ , and the interaction between the masculinity

and femininity scores,  $F(1, 148) = 2.93$ ,  $p < .09$ , to be related to social role scores as well. Duncan's Multiple Range Test indicated that low masculinity scores were significantly related to high social role scores,  $p < .05$ , and that high femininity scores were significantly related to high social role scores,  $p < .05$ . A complete summary of these findings may be found in Appendix IV. Regression analysis predicting social role scores was employed to allow for the exploration of the relationship between masculinity and femininity as continuous data and social role scores. Again, it must be stated that the regression models were not seeking to develop a model for understanding social role choice. The regression model is summarized in Table 9. The results indicated that ideal masculinity and ideal femininity were both significantly related to social role scores and that femininity exhibited a strong, but nonsignificant relationship with social role scores as well.

Table 9

Prediction of Social Role Scores by Actual and Ideal  
Masculinity and Femininity Scores

Variable	$\beta$	$F$	df	
Masculinity (M)	19.80	2.92	1,146	n.s.
Femininity (F)	21.07	3.69	1,146	$p < .06$
Ideal M	-11.69	29.50	1,146	$p < .0001$
Ideal F	5.95	5.61	1,146	$p < .02$
M x F	-3.37	2.24	1,146	n.s.

Note:  $R^2 = .27$

Subjects were also categorized into sex role groups based on their t-scores. The mean social role scores for these groups were virtually identical to the mean social role scores exhibited by the split half defined androgynous, masculine and feminine subjects (see Table 2). Thus, for social role scores, the split half and t-score procedures for defining sex role orientation do not differ.



## CHAPTER FOUR DISCUSSION

The essential goal of this study was to explore the relationship between sex role orientation as defined by the BSRI and several measures of anxiety. The early definitions and theoretical interpretations of androgyny suggested that androgynous individuals, those characterized by high amounts of both instrumental and expressive traits, would exhibit the highest self esteem and the best psychological adjustment. Extending this interpretation, one would predict that androgynous subjects would report the lowest anxiety scores. Contrary to these expected findings, Jordan-Viola et al. (1976) reported that androgyny was associated with high anxiety scores. The significance of these findings was debatable, however, due to many methodological flaws associated with that research design. One of the aims of this study, therefore, was to clarify the relationship between anxiety and androgyny.

### Sex Role Orientation and Anxiety

The results of this current study do not support Jordan-Viola et al.'s (1976) conclusions. Instead, high anxiety was found to be reported by the feminine and undifferentiated women, while androgynous and masculine women reported lower anxiety scores. Although these findings appear to support the theoretical interpretation of androgyny which assumes that androgynous individuals would report the lowest anxiety scores, further analysis of the data indicated that this interpretation was not accurate either. As predicted, masculinity was found to be negatively related to anxiety scores, but contrary to predictions, femininity was found to

have no relationship with anxiety. In fact, numerous analyses consistently indicated that only masculinity scores differentiated the sex role groups. Femininity scores, either alone, or in interaction with masculine traits failed to account for a significant amount of the anxiety score variance. For this reason, the masculine subjects and the androgynous subjects reported almost identical mean anxiety scores. The feminine and undifferentiated groups reported similar anxiety scores. These findings suggest several interpretations, concerning both the relationship between sex role attributes and anxiety, and the implications of those findings for our understanding and interpretation of psychological androgyny.

First, the question of the relationship between sex role attributes and measures of anxiety will be explored. One hypothesis for the current findings is that feminine women are more prone to express their feelings, including their feelings of worry, concern, and stress, while the masculine women might be more likely to deny such feelings. However, the femininity items, items of emotional sensitivity and expressiveness, manifested no relationship with anxiety scores. Thus, it seems unlikely that the willingness to express negative feelings would account for these findings. It remains possible, however, that the masculine subjects tended to deny feelings of worry and stress, as it was not possible to empirically assess subjects' tendency to deny such feelings. Since the masculinity items were highly and negatively correlated with anxiety scores, a second hypothesis might be that masculinity items were directly and inversely related to specific anxiety scale items. However, an examination of the scale items suggested that this was not the case. The masculinity trait items focussed on self sufficiency, and included such items as "self reliant," "makes decisions easily," and "acts as a leader." High

scores on the masculinity scale describe an individual who feels able to meet life's demands confidently, directly and successfully. In contrast, the anxiety scales contain items regarding psychosomatic symptoms and expressions of worry and concerns. The IPAT Anxiety Scale, for example, is composed of five components; apprehension, tension, low self control, emotional instability, and suspiciousness (Krug, Scheier & Cattell, 1976). Individuals scoring high on these scales are described as easily depressed, "unequal to the challenge of daily life" (p. 6) and lacking in foresight. Although the specific trait items were not directly related, an individual generally described by high anxiety scores seems to be the opposite of an individual described by high scores on the masculinity scale of the BSRI. It seems reasonable to conclude, therefore, that anxiety appears to be solely related to the absolute amount of instrumental attributes possessed by an individual, and that anxiety is not related to androgyny when that concept is regarded as the possession of both instrumental and expressive qualities.

Further evidence for this conclusion can be found when examining the results of the analyses concerning the relationship between self - ideal self scores and anxiety scores. Previous research (Howe, 1972) had indicated that individuals who report large ideal-self discrepancy scores also tend to report higher anxiety scores. However, when the masculinity difference scores and the femininity difference scores were examined separately, that is, when the masculinity difference scores and femininity scores were entered separately into a regression analysis, the data indicated that only large masculinity differences were significantly related to high anxiety scores. Differences between actual and ideal femininity scores were not contributory to the relationship

with anxiety. Additionally, when both the ideal and actual masculinity scores were entered into a regression model, the masculinity factor accounted for a greater proportion of the variance, suggesting that the presence or absence of instrumental behavioral attributes is the salient variable with regard to anxiety scores. Thus, it appears that anxiety scores were not related to overall feelings of self dissatisfaction, but specifically, to subjects' feelings of inadequacy regarding their instrumental behaviors.

#### Implications for the Interpretation of Androgyny

This conclusion is consistent with previous research reporting the greater importance of masculinity scores for determining data outcome. Hoffman and Fidell (note 3) reported, based on the results of both discriminant and Chi-Square analyses exploring the relationship between androgyny and numerous variables, that the masculine score was more important in determining the results outcome. Jones et al. (1978) concluded that masculinity scores were most important in determining the extent to which female college students scored in the adaptive direction on numerous personality measures. If these findings are to be taken at face value, it would suggest that masculinity, rather than androgyny would be considered the most rewarding and therefore, most desirable sex role orientation.

Several separate data analyses suggested, however, that this was not the case. When subjects' ideal BSRI ratings were categorized according to the split-half method, the majority of subjects (80%) indicated they wanted to possess high amounts of both masculinity and femininity; that they wanted to be androgynous. Additionally, when subjects' ideal masculinity and femininity scores were compared to their actual scores,

all but the feminine subjects reported desiring a significant increase in their femininity scores. These findings further suggest that college women believe both instrumental and expressive traits are desirable. If androgyny is regarded as the most desirable role orientation for college women, then one would expect that androgynous women would be the most satisfied with themselves. This expectation was confirmed, as the androgynous women reported the lowest discrepancy scores while the undifferentiated subjects reported the highest. Masculine women reported lower discrepancy scores than did feminine women. Since the androgynous women are defined by high masculinity and femininity, while the undifferentiated are defined by low amounts of these traits, it is possible that a ceiling effect contributed to these findings.

Overall, these results clearly indicate that androgyny, as defined by the split-half method, is perceived by college students to be the most desirable sex role orientation. Androgynous women report lower anxiety scores and the lowest self - ideal self discrepancy scores. However, masculine women also report low anxiety scores and report lower self - ideal self discrepancy scores than the feminine women. Such findings strongly suggest that college women may perceive masculine traits as more desirable than feminine traits. A more precise statement is that masculinity items on the BSRI appear to be more desirable, as a group of traits, than the femininity items. Looking over the ideal scores for the BSRI items it was evident that several items were not considered by today's college women to be desirable traits. Thus, while there may be numerous expressive "feminine" traits which all college women find attractive, they may not be on the BSRI while some undesirable traits contribute to an individual's femininity score. For example, both "childlike" and "gullible" are feminine BSRI items. However, not one of



the 152 subjects wanted to be described by either of these traits more than "infrequently." Several other traits ("flatterable," "yielding" and "shy") also received very low ideal ratings, while no masculine BSRI items received unanimous disapproval. Such obvious differences in the desirability of scale items contradicts Bem's (1974) definition of the BSRI and demonstrates the need to reassess this scale. BSRI items initially were selected on the basis of gender related desirability, although these items were later identified as instrumental and expressive behaviors. This study indicates that some BSRI items are neither gender-desirable, nor are they particularly representative of instrumentality or expressiveness. It is therefore recommended that interpretations regarding subjects' relative evaluations of masculine versus feminine traits be made with caution, as the conclusions are likely to be a function of the BSRI rather than these behavioral patterns.

#### Androgyny and Social Role Choice

Social role choice was hypothesized as a potentially significant variable mediating the relationship between sex role orientation and anxiety scores. This hypothesis was only partially confirmed. Although social role scores were found to be significantly related to anxiety scores, they did not interact with either masculinity or femininity to influence the relationship of these variables with anxiety. The data analyses indicated that an increase in social role scores or a tendency toward a more traditional social role orientation was associated with lower anxiety scores. This relationship was consistent for androgynous subjects, contrary to what was predicted. One possible explanation for these findings is that a "balanced" social role choice, that is, one which includes marriage, commitment to family goals as well as individual strivings, is for most college students, healthier or less stressful than an extreme social role which focuses solely on individual accomplishments.



More specifically, a low social role score describes an individual who is determined to be strongly self-defined. Such an individual expects to rely upon herself for financial, and perhaps emotional support. Career success is deemed highly salient to her self image and self esteem. Thus, an individual with low social role scores might feel significant amounts of pressure to succeed in academic and career related activities. For these women, college may be a more stressful, and hence, more anxiety producing experience. On the other hand, a woman who expects to be a homemaker for much of her life might feel less compelled to do well in school and thus might find school less threatening and less anxiety producing than career oriented women. It is unclear whether this relationship between social role choice and anxiety would hold true for women outside of a college setting. It might be that a more traditionally oriented social role would be less anxiety producing at any stage in a woman's life, or it might be that this relationship is unique to the stressful experience of adolescence and college. This relationship needs to be explored further.

Previous research had indicated that sex role orientation was related to social role choice (DeFronzo & Boudreau, 1977; Hoffman & Fidell, note 2). The data from this study add further support to those findings. Femininity was found to be significantly related to social role scores, Masculinity exhibited a strong, but statistically insignificant relationship with social role scores as did the interaction between these two sex role traits. In general, relatively high expressiveness (femininity) and relatively low instrumentality (masculinity) appeared to be related to a more traditional social role orientation. Ideal masculinity and femininity scores were also found to be significantly related to

social role choice such that relatively low ideal masculinity scores and relatively high ideal femininity scores were associated with traditional social role choices. In fact, when both ideal and actual masculinity and femininity scores were entered into a regression model with social role choice as the dependent variable, the ideal scores exhibited a stronger relationship with the dependent variable than did the actual scores. It is possible that college women anticipated a lifestyle which reflects the type of person they would like to be.

In addition to documenting the relationship between sex role and social role orientation, these findings also confirm that sex role orientation, as conceptualized by the androgyny theory, is a meaningful construct with regard to the social role variable. Unlike the measures of anxiety which appeared to be related solely to instrumental attributes, social role orientation scores varied as a function of both masculinity and femininity. Contrary to recent interpretations that masculinity scores alone account for much of the variance among sex role categories (Hoffman & Fidell, note 3; Jones et al., 1978), these findings suggest that both masculinity and femininity contribute to the differential characteristics of the sex role groups. It seems likely that any conclusion concerning the significance of androgyny as a unique combination of both instrumental and expressive attributes will be a function of the particular demographic or personality variables being examined in the context of sex role orientation. Some variables, like measures of trait anxiety, focus solely on instrumental trait behaviors, while others, like social role, entail a combination of both instrumental and expressive attributes. The advantage that androgynous individuals appear to have is that they possess sufficient amounts of both instrumental and

expressive behaviors such that when a role or situation requires only one or the other, they are as prepared for either role as they would be for a particular role requiring a blend of the two.

### Clinical Implications

In light of this assumption regarding the adaptability of androgynous individuals, one might expect that the focus of much therapeutic intervention would be towards the encouragement of the adoption of an androgynous orientation. However, it would be unwise at this time to make the leap from theoretical interpretations of androgyny and limited empirical studies to therapeutic formulations. Early theoretical formulations had maintained that psychologically adjusted individuals would be characterized mainly by sex appropriate traits. Thus, therapeutic efforts were frequently exerted to maintain or encourage stereotypic sex role orientation. The androgyny theory, on the other hand, has maintained that it is appropriate for individuals to be characterized by both masculine and feminine attributes, and has generated empirical evidence to support this assumption (Bem, 1976, 1977; Heilbrun, 1976; Spence et al., 1975). However, evidence has also indicated that sex typed orientation is not necessarily maladaptive (Hoffman and Fidell, note 3; Fidell, note 4). One of the difficulties drawing clinical conclusions from personality research is that statistically significant findings are not necessarily clinically significant. For example, although the regression analyses in this study indicated that masculinity scores were highly related to anxiety scores, the total anxiety score variance accounted for by the BSRI scores was minimal. In a different study, De Fronzo and Boudreau (1977) reported that the

college women reported expecting significantly different family sizes, according to their sex role categorization. However, the mean number of children expected by these subjects ranged from 1.85 children for the undifferentiated subjects, to 2.51 children for the feminine subjects -- hardly significant from a family planning perspective. At the present time there does not seem to be sufficient evidence to warrant drawing clinical implications either from this particular study, or from other studies investigating the construct of androgyny as measured by the BSRI.

It can be concluded from this study that the BSRI has greater heuristic value as a research tool, than as a clinical assessment measure. The BSRI scores, whether as t-scores, or mean femininity and masculinity scores, obscure much of the information pertinent to understanding a particular individual. For example, a mean masculinity score of 5 does not indicate whether that individual has consistently rated herself as "often being characterized" by each of the 20 masculinity items, or whether the same individual was "almost always" characterized by ten of those traits, and "infrequently" characterized by the other ten. These two possibilities represent two distinct personality profiles, and would have further implications if they were, for example, criteria for therapy outcome assessment. A clinician would need to look at the responses to each of the trait items. As such the androgyny scale would have to be employed much like any other adjective checklist measure.

#### The Split-Half Versus the Balance Procedure

One of the major issues in the androgyny literature concerns the relative merits of each of the scoring procedures and the possible conflicting results between sample populations categorized by different methods. Subjects in this study were categorized into sex role groups according

to both procedures. Thirty-nine of the feminine subjects as defined by the split-half method retained their classification under the t-score procedure. Likewise, 15 of the 17 masculine subjects did not change groups. However, of the 73 split-half defined androgynous women, only 42 were classified androgynous by the balance method, while 19 were determined to be feminine and the remaining 12 masculine. The 22 undifferentiated subjects were equally split between the androgynous and feminine groups. It is evident that the largest discrepancies between the two methods emerge over the definition of the androgynous individual. Unlike previous studies which suggested that this difference is a function of the separation or inclusion of the undifferentiated subjects, the data from this study suggest that the confusion is between classifying subjects as feminine or androgynous.

Most androgyny research relies on group differences and group means. Such procedures tend to average out possible confounding influences. Thus, although numerous studies have pointed to the unique behavioral characteristics of undifferentiated subjects (Spence et al., 1975; Hoffman & Fidell, note 3; Manning, note 5), when the scores of the subjects are added to the androgynous group scores the overall results frequently are not altered (Jones et al., 1978). Hence, it is likely that the differences in categorization are not sufficient to interfere with cautious generalizations across studies employing different scoring procedures.

In the analysis of the relationship between sex role orientation and anxiety, different conclusions were drawn when analyzing the data categorized by the two methods. The results from the split-half method indicated that androgynous and masculine subjects reported lower and



equal anxiety scores, while the feminine and undifferentiated subjects reported higher anxiety. On the other hand, the results from the difference method indicated that masculine subjects report the lowest anxiety, androgynous subjects moderate amounts, and feminine subjects the highest. Essentially, the findings of both these procedures suggest that androgynous subjects are much less anxious than their sex typed (feminine) peers. Likewise, a comparison of the results for the mean social role scores revealed no difference between the two scoring procedures. Thus, if the goal of a particular study is to determine the relative functioning of androgynous versus nonandrogynous subjects, there may be little difference in study outcome as a function of the scoring procedure employed to categorize subjects.

However, it has been advocated in this paper that it is important to understand the properties of the androgyny construct which account for these differences. The relative merits of the two scoring procedures may not lie in their ability to predict differences among sex role groups, but in their ability to explain the differential findings. In the data analyses concerning the relationship of the t-score and anxiety scores for all subjects, the regression analysis indicated that the t-score was positively related to anxiety scores, that is a higher androgyny score indicating an increased tendency toward femininity was associated with higher anxiety scores. However, there was no way to determine whether this was a function of femininity scores, the absence of masculinity scores, or of some relative balance between the two traits. On the other hand, employing the separate masculinity and femininity scores yielded by the split-half method, it became evident that masculinity itself was significantly and negatively related to anxiety while femininity



had no relationship at all with the anxiety measures, It seems evident that the balance or t-score procedure loses significant information concerning the nature of the relationship between androgyny and any other variable. Furthermore, when comparing the construct relationship between sex role orientation and social role choice, it is evident that androgyny does not interact in a consistent manner. Thus, to understand the nature of androgyny and sex role orientation as conceptualized by the BSRI, a flexible method of examining the interrelationship between this and other variables is important. To this end, the evidence appears to indicate that the split-half method of determining sex role categorization and the examination of the masculinity and femininity factors as well as their interaction and relative balance is essential for androgyny research.

However, it is also recommended that the BSRI be reassessed and eventually, modified. Its items are not all socially desirable, as intended, nor do they adequately represent gender appropriate traits. The masculinity and femininity scales appear to contain both sex stereotypic behaviors and specifically instrumental ( masculine) and expressive ( feminine) attributes. It is difficult to determine whether it is the sex stereotypic attributes, or the instrumental-expressive continuum which actually define the scales. Because of this, it is difficult to ascertain exactly what androgyny is supposed to represent. It is therefore recommended that a more complete and specific definition of psychological androgyny be developed, and that the BSRI or another measure be revised to adequately assess the redefined construct of psychological androgyny.

## CHAPTER FIVE SUMMARY

The following results and conclusions were drawn from this study:

1. First, the relationship between sex role orientation and anxiety appears to be accounted for solely by an individual's masculinity score on the BSRI. The higher the masculinity score, the lower the anxiety score tended to be. Thus, androgynous and masculine individuals reported lower anxiety scores than did the undifferentiated and feminine subjects. The two groups high in masculinity had almost identical mean anxiety scores, as did the two groups low in masculinity. These results were interpreted in terms of the likelihood that an individual with a high degree of instrumental characteristics would be likely to deny feeling unable to cope with daily life stresses and difficulties.
2. Social role scores were found to be strongly related to anxiety scores such that a tendency to anticipate a traditional social role after college was associated with lower anxiety scores for these college women. These findings were interpreted in terms of the relative salience of academic success for high and low social role females. Women who do not opt for a traditional role might be more concerned with success in school, and thus might feel increased pressure and anxiety during their college years. These findings may only be relevant to this population, and conclusions regarding the relationship between social role choice and anxiety should not be generalized to populations other than college students.
3. Self - ideal self discrepancy scores were found to be a significant variable in relation to anxiety scores only for differences between

actual and ideal masculinity ratings. Differences for the femininity scores did not influence this relationship. It was suggested that these findings reflected the strong salience of the instrumental (masculine) items for subjects' anxiety scores, rather than evidence of a relationship between self dissatisfaction in general, and high anxiety scores.

4. Androgyny was found to be the most desirable sex role orientation for the majority of college women. These women indicated that both masculine and feminine items were considered to be desirable. However, an examination of the ideal ratings for the feminine items indicated there were several items which no subject considered to be desirable, while this was not true for any masculine items. As such, the BSRI contains an artificial factor which may contribute to lower femininity scores and misinterpretations concerning ideal self ratings. A revision of the BSRI appears to be warranted.

5. Sex role orientation and social role choice were significantly related. Femininity was found to be the significant factor influencing this relationship, although masculinity and an interaction of masculinity and femininity exhibited strong, but nonsignificant trends in that direction. Since social role scores reflect the individual's compromise between a traditional and nontraditional role, or between a more instrumentally oriented, and a more expressively oriented social role, this relationship pattern seems appropriate. These findings also support the previous findings concerning the relationship between sex role and social role orientation.

6. Comparing the scoring procedures for determining the sex role categorization of subjects, it was found that the largest discrepancies occur between categorizing subjects as androgynous according to their split-half

procedure, or categorizing these same subjects as feminine, according to the balance procedure. Comparing the results of the data analyses of the relationship between sex role orientation and anxiety, and sex role orientation and social role scores, it was concluded that there was little significant difference in study outcome, when the findings are concerned with comparing androgynous with nonandrogynous subjects. However, it was concluded that the balance procedure does not allow sufficient understanding of the factors contributing to the differential scoring of the androgynous subjects. The split-half method of categorizing subjects and the examination of the masculinity and femininity factors as they influence the test outcome were proposed as essential for further androgyny research.

APPENDIX I  
INFORMED CONSENT

Subjects' name \_\_\_\_\_

Subjects' address \_\_\_\_\_

Project Number 913      Project Title: "Personality Correlates of  
College Women's Future Role Choices"

Principal Investigator: Judy Steinberger      Date: \_\_\_\_\_

I agree to participate in the research as explained to me below:

This experiment is interested in studying personality attributes associated with different women's expectations of their future roles. We will be asking you to fill out several personality inventories, and to answer several questions concerning your plans for the future. There are no anticipated risks or discomforts involved in your participation. However, if at any time you do not wish to continue with the experiment for whatever reasons, you may feel free to leave. All answers will be kept confidential -- there is no need for you to place any identifying information on any of these forms (except for this one, which will in no way be associated with your answers to the questionnaire).

Any questions?

The above stated nature and purpose of this research, including discomforts and risks involved (if any) have been explained to me verbally by Judy Steinberger. Furthermore, it is agreed that the information gained from this investigation may be used for educational purposes which may include publication. I understand that I may withdraw my consent at any time without prejudice.

Signed \_\_\_\_\_

I have defined and fully explained this research to the participant whose signature appears above.

Signed \_\_\_\_\_

APPENDIX II  
SUBJECT BACKGROUND INFORMATION

1. Please fill in your AGE\_\_\_\_, YEAR IN SCHOOL\_\_\_\_ and CHOSEN MAJOR\_\_\_\_. If undecided about your major, please indicate.
2. Do you expect to have an occupation for the major portion of your life?  
YES\_\_\_\_ NO\_\_\_\_

If you said "NO" to question 2, please go on to question 5.

3. How likely is it that your ambitions will be realized? Please circle your answer.

1	2	3	4	5
Very	Somewhat	No	Somewhat	Very
Unlikely	Unlikely	Opinion	Likely	Likely

4. How likely is it that this occupation will become the primary focus of your energy and source of satisfaction in your life?

1	2	3	4	5
Very	Somewhat	No	Somewhat	Very
Unlikely	Unlikely	Opinion	Likely	Likely

5. Ideally, for how long do you want to work? Place a check in front of the statement which best describes your answer.

☐ Not at all  
☐ Until I get married  
☐ Until my husband can support our family  
☐ I plan to work except when my children are still living at home  
☐ I plan to work except when my children are pre school age  
☐ I plan to work until retirement, full or part time depending on my childrearing responsibilities  
☐ I plan to work full time until retirement  
☐ Other \_\_\_\_\_

6. Realistically, how likely are you to work the length of time you specified?

1	2	3	4	5
Very	Somewhat	No	Somewhat	Very
Unlikely	Unlikely	Opinion	Likely	Likely



7. The following is a list of emotions people experience when thinking about careers. How often have you felt each of them? Circle your answer for each emotion.

	Never	Seldom	Sometimes	Often	Very Often
a) Excited	1	2	3	4	5
b) Confused	1	2	3	4	5
c) Depressed	1	2	3	4	5
d) Ambivalent	1	2	3	4	5
e) Overwhelmed	1	2	3	4	5
f) Self Confident	1	2	3	4	5
g) Apprehensive	1	2	3	4	5
h) Adequate	1	2	3	4	5
i) Inadequate	1	2	3	4	5
j) In control of things	1	2	3	4	5

8. In trying to decide about a future occupation, how often have you done the following? (If your decision is made, try to recall your decision making process)

	Never	Seldom	Sometimes	Often	Very Often
a) Talk to friends	1	2	3	4	5
b) Talk to parents	1	2	3	4	5
c) Talk to faculty members	1	2	3	4	5
d) Talk to someone in that field	1	2	3	4	5
e) Talk to career counselor	1	2	3	4	5

APPENDIX III  
DEBRIEFING

EXPERIMENT 913

The explanation given to you at the beginning of the experiment was accurate but lacking in detail. The first questionnaire you were given assessed your perception of your sex role identity — how instrumental, expressive, or androgynous (characterized by both instrumentality and expressiveness) you see yourself as being. Aside from the questions concerning your plans for future work, and your attitudes towards possible lifestyles, the remaining parts of the questionnaire contained two separate anxiety measures. One of the purposes of this experiment was to evaluate the relationship between an individual's sex role orientation and their scores on anxiety measures. A second purpose of this study was to explore the relationship between the sex role and anxiety measures, and women's future role choices.

You are asked not to reveal the purpose of this experiment to your friends or fellow classmates. The validity of this research rests on your willingness not to discuss this experiment. THANK YOU very much for your cooperation in this experiment.

I have read the above explanation of Experiment 913 and have no further questions concerning this experiment.

Signed \_\_\_\_\_

APPENDIX IV  
SUPPLEMENTARY DATA TABLES

Table 10  
Intercorrelation Matrix of the Four Anxiety Measures

	Trait	Overt	Covert	Total
Trait	1.00	.77	.68	.80
Overt	.77	1.00	.65	.92
Covert	.68	.65	1.00	.89
Total	.80	.92	.89	1.00

Table 11

Anxiety Scores Predicted by BSRI Actual and Ideal Scores  
and Social Role Scores

Overt Anxiety				
Variable	$\beta$	F	df	
M	-4.07	17.16	1,146	$p < .0001$
F	0.24	.04	1,146	n.s.
Ideal M	1.05	.61	1,146	n.s.
Ideal F	-1.40	.88	1,146	n.s.
Social Role	-0.11	5.61	1,146	$p < .02$

Note:  $R^2 = .17$

Covert Anxiety				
Variable	$\beta$	F	df	
M	-1.65	3.67	1,146	$p < .06$
F	0.08	.01	1,146	n.s.
Ideal M	1.60	1.85	1,146	n.s.
Ideal F	-0.02	0.00	1,146	n.s.
Social Role	-0.11	7.04	1,146	$p < .009$

Note:  $R^2 = .10$

Total Anxiety				
Variable	$\beta$	F	df	
M	-5.74	11.77	1,146	$p < .0008$
F	0.25	0.01	1,146	n.s.
Ideal M	2.61	1.30	1,146	n.s.
Ideal F	-1.20	.22	1,146	n.s.
Social Role	-0.22	7.60	1,146	$p < .007$

Table 13

Summary of the Manova Analysis of Anxiety Scores for the Sex  
Role Categories Defined by the Androgyny t-score Method

Dependent Variable: Trait Anxiety

Source	df	SS	MS	F	
Model	1	509.19	509.19	6.85	p < .01
Error	150	11146.08	74.31		
Total	151	11655.26			

Dependent Variable: Overt Anxiety

Source	df	SS	MS	F	
Model	1	277.92	277.92	6.21	p < .01
Error	150	6713.97	44.76		
Total	151	6991.89			

Dependent Variable: Covert Anxiety

Source	df	SS	MS	F	
Model	1	5.76	5.76	.18	n.s.
Error	150	4908.32	32.72		
Total	151	4914.08			

Dependent Variable: Total Anxiety

Source	df	SS	MS	F	
Model	1	379.29	379.29	2.96	n.s.
Error	150	19248.23	128.32		
Total	151	19627.52			

Manova Test for the Hypothesis of No Overall Group Effect yielded.  
 $F(4, 147) = 3.09, p < .02$ .

Table 12

Prediction of Anxiety Scores by BSRI Discrepancy Scores  
and Social Role Scores for Androgynous Subjects

Trait Anxiety				
Variable	$\beta$	F	df	
M Discrepancy	.74	.08	1,68	n.s.
F Discrepancy	-9.32	.46	1,68	n.s.
Social Role	-0.18	4.18	1,68	$p < .04$
Note: $R^2 = .08$				
Overt Anxiety				
Variable	$\beta$	F	df	
M Discrepancy	.07	0.00	1,68	n.s.
F Discrepancy	-19.11	3.58	1,68	$p < .06$
Social Role	-0.18	7.87	1,68	$p < .006$
Note: $R^2 = .15$				
Covert Anxiety				
Variable	$\beta$	F	df	
M Discrepancy	0.69	.15	1,68	n.s.
F Discrepancy	-12.44	1.71	1,68	n.s.
Social Role	-0.11	3.17	1,68	n.s.
Note: $R^2 = .07$				
Total Anxiety				
Variable	$\beta$	F	df	
M Discrepancy	0.64	.04	1,68	n.s.
F Discrepancy	-31.77	3.15	1,68	n.s.
Social Role	-0.29	6.33	1,68	$p < .01$
Note: $R^2 = .12$				



Table 14

Means and Summary of the Two Way Analysis of Variance  
of Social Role Scores

	Androgynous	Masculine	Feminine	Undifferentiated	
Social Role Score	52.86	49.35	60.70	49.50	
-----					
Source	df	SS	MS	F	
Model	3	2702.27	900.76	6.38	p < .0005
Masculinity(M)	1	751.94		5.32	p < .02
Femininity(F)	1	1536.73		10.88	p < .001
M x F	1	413.60		2.93	n.s.
Error	148	20900.41	141.22		
Total	151	23602.68			

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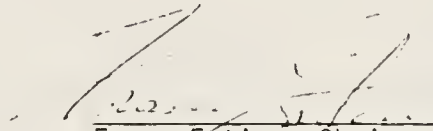


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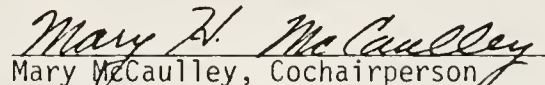
Judith Laura Steinberger was born in New York City on December 13, 1951. She attended Brooklyn College of the City University of New York where she majored in the humanities and psychology. She graduated summa cum laude with honors in psychology in May, 1972. She was also elected to Phi Beta Kappa.

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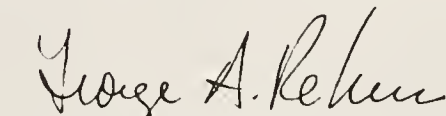
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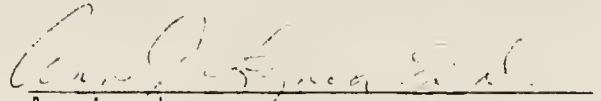
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A handwritten signature in dark ink, appearing to read "Ann Lynch", is written over a horizontal line.

Ann Lynch  
Counseling Psychologist

This dissertation was submitted to the Graduate Faculty of the Department of Psychology in the College of Arts and Sciences and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

August 1978

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Dean, Graduate School

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